

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number
WO 2005/059578 A3

(51) International Patent Classification : **G01F 11/36**

(21) International Application Number:
PCT/GB2004/005014

(22) International Filing Date:
29 November 2004 (29.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0329516.9 19 December 2003 (19.12.2003) GB

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

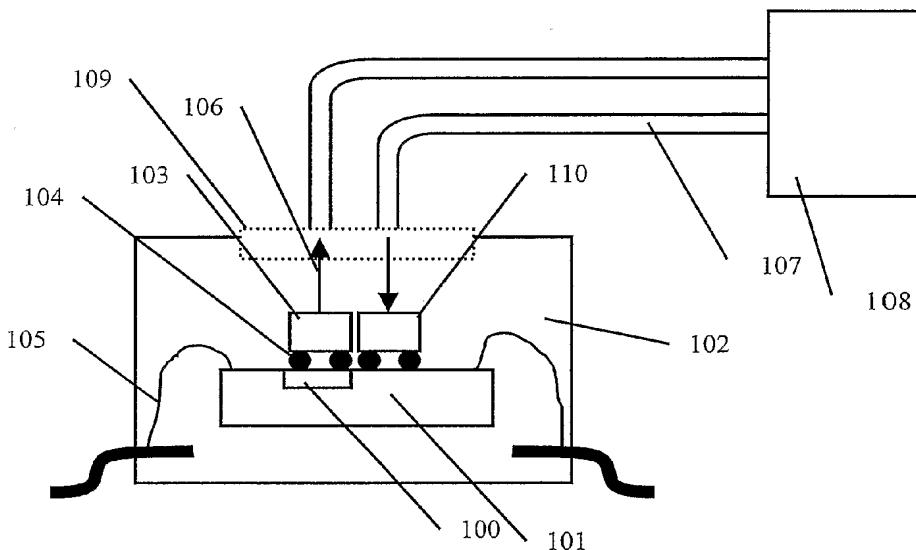
- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:

11 May 2006

[Continued on next page]

(54) Title: INTEGRATED CIRCUIT WITH DEBUG SUPPORT INTERFACE



(57) **Abstract:** A high speed debug support interface has circuits to interface on-chip debug support circuits to a high bandwidth communications port means located on the surface of a system integrated circuit (101) and to on-chip debug support circuits (100). The communication port means can be realised by bonding or integrating special sender and or receiver cells preferably optical sender cells (103) and or optical receiver cells (110) onto the surface of the system integrated circuit (101). The high speed debug support interface communicates with on-chip or in-assembly debug support circuits and an external development tool (108) to permit hardware and software related debugging and development activities, including program tracing, data tracing and memory substitution. The high speed debug support interface has circuits to interface on-chip debug support circuits to system resources such as memory located within the device assembly (102) and connected by the system interconnect.

WO 2005/059578 A3



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